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John A. Moore

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JOHN A. MOORE

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Appeal 2009-005535  
Application 10/758,061  
Technology Center 2100

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Decided: March 22, 2010

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*Before* LANCE LEONARD BARRY, JAY P. LUCAS, and THU A. DANG,  
*Administrative Patent Judges.*

DANG, *Administrative Patent Judge.*

DECISION ON APPEAL

## I. STATEMENT OF THE CASE

Appellant appeals under 35 U.S.C. § 134 (2002) from a final rejection of claims 1, 3-10, 12-15, and 17-20. Claims 2, 11, and 16 have been canceled. We have jurisdiction under 35 U.S.C. § 6(b) (2008).

We affirm-in-part.

### A. INVENTION

According to Appellant, the invention relates generally to file management systems, and more particularly, to hierarchical storage management systems (Spec. 1, ll. 4-5).

### B. ILLUSTRATIVE CLAIM

Claim 1 is exemplary and is reproduced below:

1. A method for managing image files in a host system comprising:

identifying an image file stored in secondary storage for a host system;

comparing file metadata for the identified image file to a downgrade threshold;

downgrading the identified image file in response to the comparison of the file metadata to the downgrade threshold;

storing the downgraded file in the secondary storage of the host system; and

storing the identified image file in tertiary storage of the host system, the tertiary storage of the host system having an

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access time that is greater than the access time for the secondary storage of the host system.

### C. REJECTIONS

The prior art relied upon by the Examiner in rejecting the claims on appeal is:

Gleicher	5,218,431	Jun. 8, 1993
Bryniarski	5,974,182	Oct. 26, 1999
Baba	2001/0014172 A1	Aug. 16, 2001
Toda	2002/0037100 A1	Mar. 28, 2002

Claims 1, 5-10, 12-15, and 17-20 stand rejected under 35 U.S.C. § 103(a) over the teachings of Toda in view of Baba.

Claim 3 stands rejected under 35 U.S.C. § 103(a) over the teachings of Toda in view of Baba and Gleicher.

Claim 4 stands rejected under 35 U.S.C. § 103(a) over the teachings of Toda in view of Baba and Bryniarski.

### II. ISSUE

Did the Examiner err in finding that the combination of Toda in view of Baba teaches or would have suggested “storing the downgraded file in the secondary storage of the host system” and “storing the identified image file in tertiary storage” (claim 1, emphasis added), as Appellant contends?

### III. FINDINGS OF FACT

The following Findings of Fact (FF) are shown by a preponderance of the evidence.

#### *Toda*

1. Toda discloses an image processing apparatus which includes a CPU that executes an image compression processing using programs and stored data, and a RAM having an area for temporarily storing programs and data loaded from an external storage device and storage medium drive and data input from an image data input device (p. 8, ¶ [0135]; Fig. 28).
2. A binarization unit generates a binary image on the basis of the color document image loaded onto the RAM, wherein a histogram of luminance data in the color document image is computed, the color document image is binarized using the binarization threshold value to generate a binary image, and the generated binary image is stored in an area different from that which stores the color document image in the RAM (p. 9, ¶ [0142]; Fig. 29).

#### *Baba*

3. Baba discloses image data processing carried out on an internal memory device having extremely fast processing speed (p. 7, ¶ [0102]; Fig. 9).
4. Data is transferred from the internal memory device to an external memory device (p. 8, ¶ [0113]), wherein the external storage device, such as a hard disc drive, is slow in processing speed (p. 7, ¶ [0102]).

#### IV. PRINCIPLES OF LAW

"[T]he PTO gives claims their 'broadest reasonable interpretation.'" *In re Bigio*, 381 F.3d 1320, 1324 (Fed. Cir. 2004) (quoting *In re Hyatt*, 211 F.3d 1367, 1372 (Fed. Cir. 2000)). "Moreover, limitations are not to be read into the claims from the specification." *In re Van Geuns*, 988 F.2d 1181, 1184 (Fed. Cir. 1993) (citing *In re Zletz*, 893 F.2d 319, 321 (Fed. Cir. 1989)). Our reviewing court has repeatedly warned against confining the claims to specific embodiments described in the specification. *Phillips v. AWH Corp.*, 415 F.3d 1303, 1323 (Fed. Cir. 2005) (en banc).

#### V. ANALYSIS

##### *Claims 1, 5, 8, and 9*

As to independent claim 1, though Appellant admits that the document image of Toda "is clearly identified as being loaded onto the RAM 2802 from the external storage device 2804, image input device 2808, or stage medium drive 2809" (App. Br. 4), Appellant contends that "these devices [2804, 2808 and 2809] form the secondary storage for the system" because "RAM 2802 is described as a temporary storage area or as a work area" which is "diametrically opposed to the meaning of secondary storage as established by the Applicant for understanding the claimed invention" (*id.*). In particular, Appellant contends that "[o]n page 1, lines 7-20 of Applicant's specification, different types of memory are described with reference to access times" wherein "[t]hese differences are used to identify secondary and tertiary storage in a hierarchical management system" (*id.*).

Similarly, Appellant contends that “[t]he word ‘tertiary’ is clearly a reference to a *third* level of storage” (App. Br. 6), and that “[t]he Examiner cites references that only differentiate between two levels of storage and he reverses those two levels as they are commonly understood” (*id.*).

However, the Examiner finds that the combined teachings of Toda and Baba would have suggested “storing the downgraded file in the secondary storage of the host system” because “it is clear from [the cited] passage that Toda’s color document image (used to generate the binary image) was loaded/stored onto the RAM” and that “the generated binary image is then stored in a different area but still in the ‘SAME’ RAM 2802; wherein the RAM 2809[sic] corresponds to the secondary storage of the host system as claimed” (Ans. 14-15). Further, the Examiner finds that “the BABA reference expressly teaches storing the identified image file in tertiary storage of the host system” because Baba discloses that “original image data are stored in an external storage device, such as a hard disc drive device, which is then accessed for performing image data processing operations” (Ans. 15-16). In particular, the Examiner explains that “since the external storage device, such as the hard disc dove[sic] device, is slow in processing speed and hence an extremely long time is consumed in the data processing operations ... the examiner interprets BABA’s external device as the tertiary storage of the host system claimed” (*id.*).

Thus, the issue we address on appeal is whether Toda in view of Baba teaches or would have suggested “storing the downgraded file in the

secondary storage of the host system” and “storing the identified image file in tertiary storage” (claim 1, emphasis added), as Appellant contends.

We give the claims their broadest reasonable interpretation. *See In re Bigio*, 381 F.3d at 1324. Furthermore, our analysis will not read limitations into the claims from the specification. *See In re Van Geuns*, 988 F.2d at 1184.

Although Appellant contends that the external storage device 2804, image input device 2808, and stage medium drive 2809 of Toda “form the secondary storage or the system” as opposed to RAM 2802 (App. Br. 4), and that “[t]he word ‘tertiary’ is clearly a reference to a *third* level of storage” (App. Br. 6), Appellant’s claims simply do not place any limitation on what the terms “secondary” and “tertiary” are to be, to represent, or to mean, other than that the image file and the downgraded file are stored “in the secondary storage of the host system” and the image file is then stored “in tertiary storage” (claim 1).

Thus, the secondary storage and tertiary storage cannot be confined to a specific embodiment set forth in Appellant’s arguments, when the claims do not recite a specific embodiment. Instead, we interpret a “secondary” storage as a second or subsequent storage, and interpret a “tertiary” storage as a storage subsequent to the “secondary” storage. That is, nothing in claim 1 excludes the “secondary” storage from being a storage subsequent to storage in an external storage device, image input device or stage medium drive, as long as the storage is subsequent to another storage. Similarly, the



language of claim 1 does not require that the “tertiary” storage to be a third level of storage.

In fact, claim 1 does not even recite a “primary” storage. Rather, claim 1 merely cites a “secondary” storage and a “tertiary” storage, wherein the terms “secondary” and “tertiary” do not change the functionality of or provide an additional function to the “storage.” That is, these “secondary” and “tertiary” terms are merely labels used to describe these storages as being two separate and distinct storages.

Toda discloses a RAM having an area for temporarily storing programs and data loaded from an external storage device and storage medium drive and data input from an image data input device (FF 1), wherein a generated binary image is stored in the RAM which also stores the color document image from which the binary image is based (FF 2). We agree with the Examiner’s finding that RAM 2802 of Toda “corresponds to the secondary storage of the host system as claimed” whereby “Toda’s color document image (used to generate the binary image) was loaded/stored onto the RAM” and that “the generated binary image is then stored in a different area but still in the ‘SAME’ RAM 2802” (Ans. 14-15). That is, we find that Toda’s RAM to be a “secondary” storage in that it is a storage that is subsequent to the storage in the external storage device, storage medium drive, or the image data input device.

Baba discloses image data processing carried out on an internal memory device having extremely fast processing speed (FF 3), wherein data is transferred from the internal memory device to an external memory

device, such as a hard disc drive, having slower processing speed (FF 4). The skilled artisan would have understood Baba's external storage device to be a storage subsequent to storage in the internal RAM, wherein the access time of the external storage device is greater than that of the internal RAM. That is, because the external storage device is slower in processing speed than the internal RAM, it has a greater access time.

Accordingly, we agree with the Examiner's finding that "since the external storage device ... is slow in processing speed and hence an extremely long time is consumed in the data processing operations... the examiner interprets BABA's external device as the tertiary storage of the host system claimed" (Ans. 16). That is, we find that Baba's external storage device to be a "tertiary" storage in that it is a storage that is subsequent to the "secondary" storage, i.e., the internal RAM, having an access time that is greater than the access time for the secondary storage.

We agree with the Examiner's conclusion that the combined teachings of Toda and Baba would have suggested the features of claim 1. Accordingly, we find that the Examiner has not erred in rejecting independent claim 1 and claims 5, 8, and 9 falling therewith under 35 U.S.C. § 103(a).

#### *Claim 6*

Appellant contends that "reduction in the Toda reference more likely refers to decimation than it does to pixel size reduction [as required by claims 6]" (App. Br. 7). Though the Examiner finds that Toda discloses that "[i]f the number of areas with large coefficients of high-frequency portions

in the orthogonal transformation result is equal to or large than a threshold value, the controller 2001 adjusts the reduction parameter to 1/2” (Ans. 16-17), we agree with Appellant. That is, we agree with Appellant that the sections of Toda cited by the Examiner do not teach the claimed “pixel size reduction” as claimed.

Accordingly, we find that the Examiner has erred in rejecting claim 6 as unpatentable over Toda and Baba under 35 U.S.C. § 103(a).

*Claim 7*

Appellant contends that, though Toda “states that an RGB format may be converted to an LAB or YCrCb format,” such conversion is “not size reduction” because “rounding, not the conversion from one format to another cited by the Examiner, reduces the size of the color data [as required by claim 7]” (App. Br. 7-8). Though the Examiner finds that Toda discloses that “color data may be converted from an RGB format into an LAB or YcrCb format” (Ans. 17), we agree with Appellant. That is, though Toda discloses converting from one format to another, we agree with Appellant that the sections of Toda cited by the Examiner do not teach that the converted format “requires less data to represent color” as claimed.

Accordingly, we find that the Examiner has erred in rejecting claim 7 as unpatentable over Toda and Baba under 35 U.S.C. § 103(a).

*Claim 10*

Appellant contends that, in the combined teachings, “the original image appears to be the full resolution image and the storage in which the original image is located is not described as being either secondary or

tertiary” (App. Br. 9). Though the Examiner finds that Toda discloses “performing a downgrade operation on the full resolution version of the identified image file to generate the downgraded file” (Ans. 18), we agree with Appellant that this is not the full resolution version from the tertiary storage. That is, though Toda in view of Baba discloses a tertiary (external) storage and performing down grade operation on a full resolution version, we agree with Appellant that the sections of Baba cited by the Examiner do not teach that the full resolution version of the image file is “from tertiary storage” as required by claim 10.

Accordingly, we find the Examiner has erred in rejecting claim 10 as unpatentable over Toda and Baba under 35 U.S.C. § 103(a).

*Claims 12-14*

Appellant contends that “[t]he Examiner cites to nothing that indicates this histogram relates to file access frequency [of claim 12]” (App. Br. 9), that “[n]o history of file access [of claim 13] is discussed [in Baba]” (App. Br. 11), and that “the cited paragraph does not refer to a classification threshold [of claim 14]” (*id.*). However, claims 12-14 simply do not respectively place any limitation on what the terms “file access frequency,” “last access time” and “classification” are to be, to represent, or to mean, other than that the respective thresholds are compared to file metadata. In fact, the terms “file access frequency,” “last access time” and “classification” do not change the functionality of or provide an additional function to the “comparing” step but are merely labels used to describe these

thresholds as separate and distinct thresholds. Accordingly, we interpret claims 12-14 to require comparing file metadata for a threshold.

As the Examiner finds regarding claim 1 from which claims 12-14, Toda in view of Baba discloses “comparing file metadata for the identified image file to a downgrade threshold” (Ans. 4). Appellant provides no argument to dispute that the Examiner has correctly shown where the claimed elements of claim 1 appear in Toda and Baba.

Accordingly, we find that the Examiner did not err in rejecting claim 12-14 as unpatentable over Toda and Baba under 35 U.S.C. § 103(a).

*Claims 15, and 17-20*

Appellant contends that “file metadata are data about a file” wherein “[p]ixels, on the other hand, are the actual data in the file” (App. Br. 12). Though the Examiner finds that “the pixels [of Toda] corresponds to file metadata as claimed” (Ans. 20), we agree with Appellant. That is, we find that the skilled artisan would have understood pixels to be actual data in a file rather than “metadata” as claimed.

Accordingly, we find that the Examiner did not err in rejecting claim 15 and claims 17-20 depending therefrom and falling therewith as unpatentable over Toda and Baba under 35 U.S.C. § 103(a).

*Claims 3 and 4*

Appellant does not provide separate arguments with respect to claims 3 and 4 depending from claim 1. That is, Appellant has not indicated that the Examiner erred in rejecting claim 3 falling with claim 1 as unpatentable over Toda in view of Baba and Gleicher, or in rejecting claim 4 falling with

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claim 1 as unpatentable over Toda in view of Baba and Bryniarski, under 35 U.S.C. § 103(a).

## VI. CONCLUSIONS OF LAW

(1) The Examiner did not err in concluding that claims 1, 3-5, 8, 9, and 12-14 are unpatentable under 35 U.S.C. § 103(a).

(2) The Examiner erred in concluding that claims 6, 7, 10, 15, and 17-20 are unpatentable under 35 U.S.C. § 103(a).

(3) Claims 1, 3-5, 8, 9, and 12-14 are not patentable.

## VII. DECISION

We affirm the Examiner's rejection of claims 1, 3-5, 8, 9, and 12-14 and reverse the Examiner's rejection of claims 6, 7, 10, 15, and 17-20 under 35 U.S.C. § 103(a).

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED-IN-PART

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